

#### ABSTRACT OF THE DISCLOSURE

A polymer gel composition and an optical element using the same are provided. The polymer gel composition has a simple constitution, can be applied for a display element of transmission type, and exhibits large differences in the light-scattering index, light refractive index, and light absorption according to an imposed electric field with stable repeating performance. The polymer gel composition and the optical element using it contain a liquid and a charged polymer gel that exhibits volumetric change depending on the absorption/releasing of the liquid according to an imposed electric field.